AMENDED CLAIMS

[Received by the International Bureau on 06 October 2003 (06.10.2003); original claim 18 replaced by amended claim 18, original claims 1-17 and 19 remain unchanged (2 pages)]

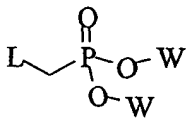
12. The method of claim 9 wherein the step of reacting the heterocyclic base with the compound gives a total yield of the product and the N7-alkylated byproduct of at least 91%, and wherein about 97% of the total yield is the product and wherein about 1.3% of the total yield is the N7-alkylated byproduct.

13. The method of claim 1 wherein the heterocyclic base is present in the dimethylacetamide at a concentration of up to 220mM.

14. The method of claim 1 wherein the heterocyclic base is present in the dimethylacetamide at a concentration of up to 270mM.

15. The method of claim 1 further comprising reacting the product according to Structure 3 with a phosphonate.

16. The method of claim 15 wherein the phosphonate has a structure according to Structure 5

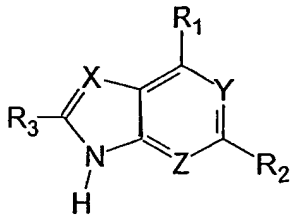


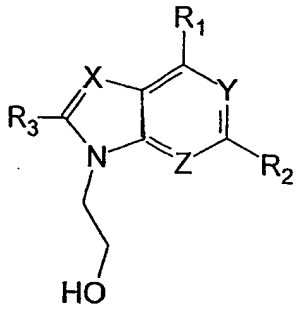
Structure 5

wherein L is a leaving group, and wherein W is a protecting group of the oxygen.

17. The method of claim 16 wherein L is a tosyl group and wherein W is ethyl group.

18. A method of preparing a compound according to Structure 3 comprising:
reacting a heterocyclic base according to Structure 1 in a solvent with ethylene oxide to form a product according to Structure 3;





Structure 1 Structure 3

wherein X, Y and Z are independently N or CR, with R being H, halogen, OH, NH_2, or substituted or unsubstituted alkyl, alkenyl, alkynyl, aryl, or alkaryl;

wherein R_1, R_2, and R_3 are independently H, halogen, OH, NH_2, $CO(NH_2)$, $CNH(NH_2)$, N_3, or substituted or unsubstituted alkyl, alkenyl, alkynyl, aryl, or alkaryl; and

reacting the product according to Structure 3 with a phosphonate to obtain an antiviral nucleoside analog.

19. The method of claim 17 wherein the solvent is dimethylacetamide.